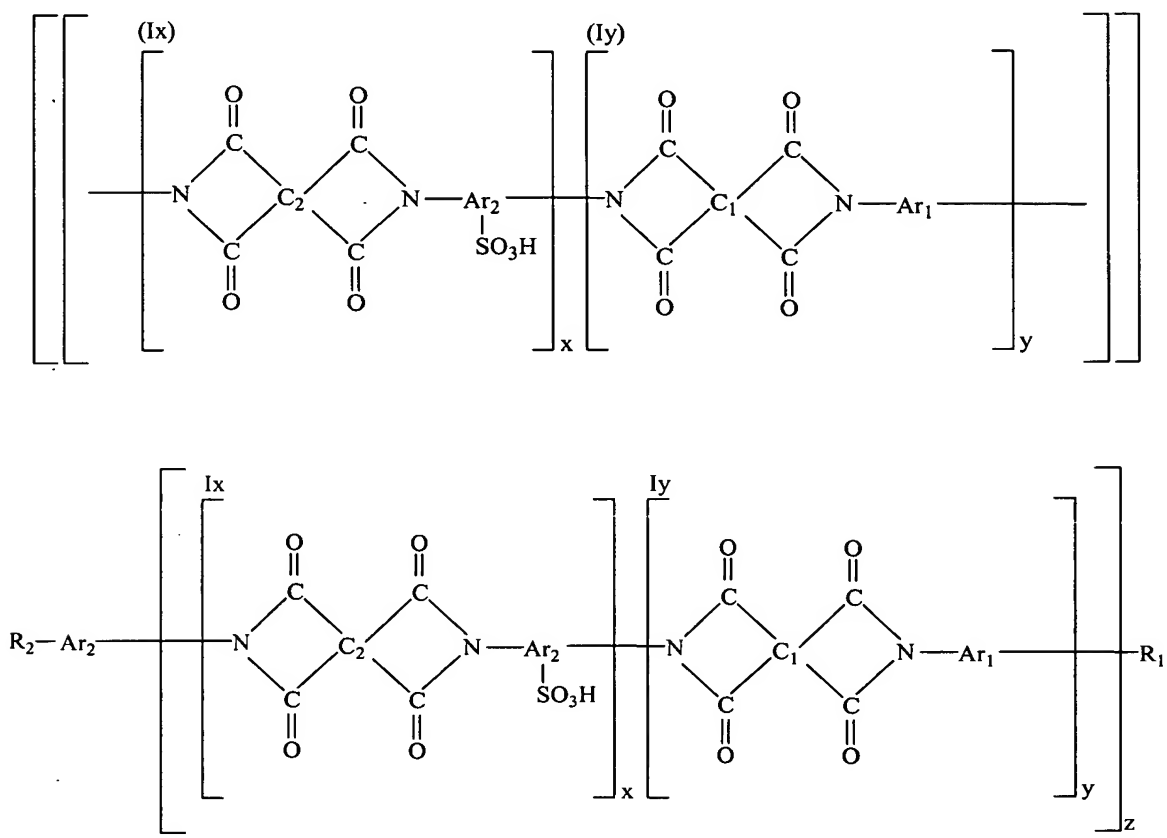


# IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): Block sulfonated polyimide ~~formed by the~~  
~~comprising blocks or sequences represented by the formulas (Ix) and (Iy) as follows~~ formula  
(I):

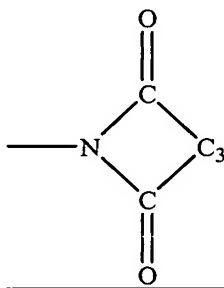


in which:

- x is a real number from 5 to 10 in formula Ix; and
- y is a real number greater than or equal to x in formula Iy;
- and the groups C<sub>1</sub> and C<sub>2</sub> can be identical or different, and each represents a tetravalent group comprising at least one carbonaceous aromatic ring, optionally substituted, having from 6 to 10 carbon atoms and/or a heterocycle of aromatic character, optionally

substituted, having from 5 to 10 atoms and comprising one or more heteroatoms selected from the group including S, N and O; C<sub>1</sub> and C<sub>2</sub> each forming, with the adjacent imide groups, cycles of 5 or 6 atoms,

- the groups Ar<sub>1</sub> and Ar<sub>2</sub> can be identical or different, and each represents a divalent group comprising at least one carbonaceous aromatic ring, optionally substituted, having from 6 to 10 carbon atoms and/or a heterocycle that is aromatic in character, optionally substituted, having from 5 to 10 atoms and comprising one or several heteroatoms selected from the group including S, N and O; at least one of said carbonaceous aromatic rings and/or Ar<sub>2</sub> heterocycle being, moreover, substituted by at least one sulfonic acid group and where each of the groups R<sub>1</sub> and R<sub>2</sub> represents NH<sub>2</sub> or a group represented by the formula:



where C<sub>3</sub> is a divalent group comprising at least one carbonaceous aromatic ring, optionally substituted, having from 6 to 10 carbon atoms and/or a heterocycle of aromatic character, optionally substituted, having from 5 to 10 atoms and comprising one or more heteroatoms selected from the group that includes S, N, and O, C<sub>3</sub> forming with the adjacent imide group a cycle with 5 to 6 atoms.

Claim 2 (Original): Sulfonated polyimide according to claim 1, in which the value of y is in the range from 5 to 40.

Claim 3 (Previously Presented): Sulfonated polyimide according to Claim 1 in which the value of x is from 5 to 9 and the value of y is from 5 to 10.

Claim 4 (Canceled)

Claim 5 (Currently Amended): Sulfonated polyimide according to Claim [[4]] 1, in which in the formula (I), z represents a number from 1 to 10.

Claim 6 (Previously Presented): Sulfonated polyimide according to Claim 1, the equivalent molecular weight defined by the polymer weight in gram per sulfonic acid equivalent of which is from 400 to 2,500.

Claim 7 (Previously Presented): Sulfonated polyimide according to Claim 1 the molecular weight of which is from 10,000 to 100 000.

Claim 8 (Currently Amended): Sulfonated polyimide according to Claim 1, in which in the formulas (I<sub>x</sub>), (I<sub>y</sub>), and (I), C<sub>1</sub>, and C<sub>2</sub> can be identical or different, and each represents a benzenic ring optionally substituted, by one or two substituents selected from the alkyl and ~~aleoxy~~ alkoxy groups with 1 to 10 C and the halogen atoms; or several benzenic rings optionally substituted by one or more substituents selected from the alkyl and ~~aleoxy~~ alkoxy groups with 1 to 10 C and the halogen atoms, linked by a simple bond or by a divalent group between them;

- C<sub>1</sub> and C<sub>2</sub> can also each represent a condensated polycyclic carbonaceous group optionally substituted by one or more substituents selected from the alkyl and ~~aleoxy~~ alkoxy groups with 1 to 10 C and the halogen atoms;

- C<sub>1</sub> and C<sub>2</sub> can also each represent a heterocycle or a condensated heterocycle, with aromatic character, this heterocycle being optionally substituted by one or more substituents

selected from among the alkyl and ~~aleoxy~~ alkoxy groups with 1 to 10 C and the halogen atoms;

- Ar<sub>1</sub> and Ar<sub>2</sub> can be identical or different, and each represents a divalent benzenic ring with meta or para binding, optionally substituted by one or more substituents selected from among the alkyl and ~~aleoxy~~ alkoxy with 1 to 10 C and the halogen or several benzenic rings optionally substituted by one or more substituents selected from among the alkyl and ~~aleoxy~~ alkoxy groups with 1 to 10 C and the halogen atoms, linked by a simple bond or by a divalent group;

- Ar<sub>1</sub> and Ar<sub>2</sub> can also each represent a condensated polycyclic carbonaceous group optionally substituted by one or more substituents selected from among the alkyl and ~~aleoxy~~ alkoxy groups with 1 to 10 C and the halogen atoms;

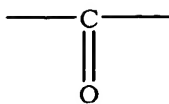
~~- Ar<sub>1</sub> and Ar<sub>2</sub> can also each represent a condensated polycyclic carbonaceous group optionally substituted by one or more substituents selected from among the alkyl and ~~aleoxy~~ alkoxy groups with 1 to 10 C and the halogen atoms.~~

Claim 9 (Currently Amended): Sulfonated polyimide according to Claim [[4]] 1, in which in the formula (I), C<sub>3</sub> is a benzenic or naphthalenic cycle optionally substituted by one or more substituents selected from among the 1 to 10 C alkyl and ~~aleoxy~~ alkoxy groups and the halogen atoms.

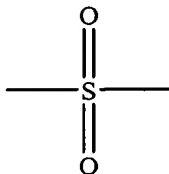
Claim 10 (Currently Amended): Sulfonated polyimide according to Claim 8, in which the divalent group mentioned is selected from among:

- a divalent group derived from a linear or branched alkyl group with 1 to 10 C optionally substituted, by one or more halogens selected from among F, Cl, Br, and I and/or by one or more hydroxyl groups:

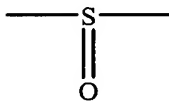
- a heteroatom selected from among O, S;



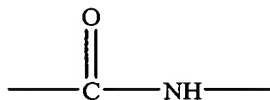
- a group ;



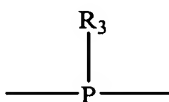
- a group ;



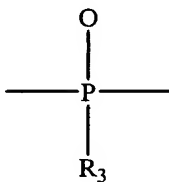
- a group ;



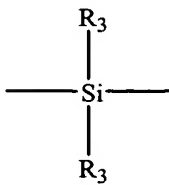
- a group ;



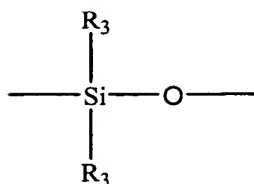
- a group ;



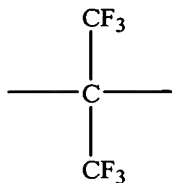
- a group ;



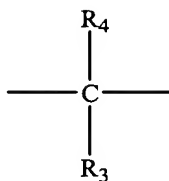
- a group ;



- a group ;



- a group ;



- a group ;

where  $\text{R}_3$  and  $\text{R}_4$  are selected from among the alkyl groups of 1 to 10 C ~~such as methyl, ethyl, and isopropyl, etc.~~

Claim 11 (Original): Sulfonated polyimide according to Claim 8, in which  $\text{C}_1$  is a benzenic ring, and  $\text{C}_2$  is a set of two benzenic rings linked by an oxygen bridge between them.

Claim 12 (Original): Sulfonated polyimide according to Claim 8, in which  $\text{C}_1$  is comprised of benzenic cycles linked by one or more perfluoroalkylene groups and  $\text{C}_2$  is comprised of benzenic rings linked by one or more divalent perfluoroalkyl groups or perfluoroalkylenes.

Claim 13 (Original): Sulfonated polyimide according to Claim 8, in which C<sub>1</sub> is a benzenic ring and C<sub>2</sub> is a naphthalene cycle.

Claim 14 (Original): Sulfonated polyimide according to Claim 8, in which C<sub>1</sub> and C<sub>2</sub> are both naphthalenic cycles.

Claim 15 (Original): Sulfonated polyimide according to Claim 8, in which Ar<sub>1</sub> is a diphenyl methane group, and C<sub>2</sub> is a biphenyl disulfonic.

Claim 16 (Original): Sulfonated polyimide according to Claim 8, in which Ar<sub>1</sub> is a benzenic group and Ar<sub>2</sub> is a biphenyl disulfonic.

Claim 17 (Currently Amended): ~~Process~~ Sulfonated polyimide according to Claim 8, in which Ar<sub>1</sub> is a diphenyl ether group and Ar<sub>2</sub> is a biphenyl disulfonic group.

Claim 18 (Previously Presented): Membrane comprising a sulfonated polyimide according to Claim 1.

Claim 19 (Original): Fuel cell device comprising at least one membrane according to Claim 18.

Claim 20 (Currently Amended): Sulfonated polyimide according to Claim ~~[[4]]~~ 1, in which in the formulas (I<sub>x</sub>), (I<sub>y</sub>), and (I), C<sub>1</sub>, and C<sub>2</sub>, can be identical or different, and each represents a benzenic ring optionally substituted, by one or two substituents selected from the alkyl and ~~alkoxy~~ alkoxy groups with 1 to 10 C and the halogen atoms; or several benzenic

rings optionally substituted by one or more substituents selected from the alkyl and ~~aleoxy~~ alkoxy groups with 1 to 10 C and the halogen atoms, linked by a simple bond or by a divalent group between them;

- C<sub>1</sub> and C<sub>2</sub> can also each represent a condensated polycyclic carbonaceous group optionally substituted by one or more substituents selected from the alkyl and ~~aleoxy~~ alkoxy groups with 1 to 10 C and the halogen atoms;

- C<sub>1</sub> and C<sub>2</sub> can also each represent a heterocycle or a condensated heterocycle, with aromatic character, this heterocycle being optionally substituted by one or more substituents selected from among the alkyl and ~~aleoxy~~ alkoxy groups with 1 to 10 C and the halogen atoms;

- Ar<sub>1</sub> and Ar<sub>2</sub> can be identical or different, and each represents, for example, a divalent benzenic ring with meta or para binding, optionally substituted by one or more substituents selected from among the alkyl and ~~aleoxy~~ alkoxy with 1 to 10 C and the halogen or several benzenic rings optionally substituted by one or more substituents selected from among the alkyl and ~~aleoxy~~ alkoxy groups with 1 to 10 C and the halogen atoms, linked by a simple bond or by a divalent group;

- Ar<sub>1</sub> and Ar<sub>2</sub> can also each represent a condensated polycyclic carbonaceous group optionally substituted by one or more substituents selected from among the alkyl and ~~aleoxy~~ alkoxy groups with 1 to 10 C and the halogen atoms;

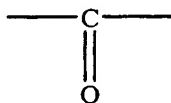
~~- Ar<sub>1</sub> and Ar<sub>2</sub> can also each represent a condensated polycyclic carbonaceous group optionally substituted by one or more substituents selected from among the alkyl and ~~aleoxy~~ alkoxy groups with 1 to 10 C and the halogen atoms.~~

Claim 21 (Currently Amended): The sulfonated polyimide according to Claim 20, in which the divalent group mentioned is selected from among:

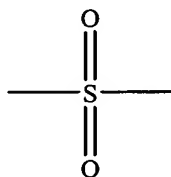


- a divalent group derived from a linear or branched alkyl group with 1 to 10 C  
optionally substituted, by one or more halogens selected from among F, Cl, Br, and I and/or  
by one or more hydroxyl groups:

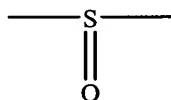
- a heteroatom selected from among O, S;



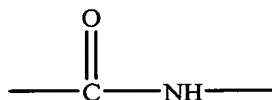
- a group ;



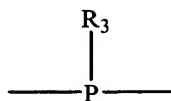
- a group ;



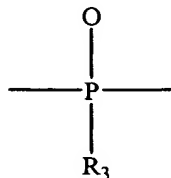
- a group ;



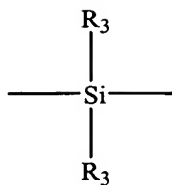
- a group ;



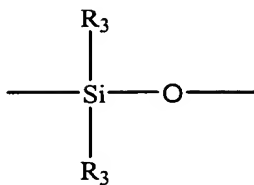
- a group ;



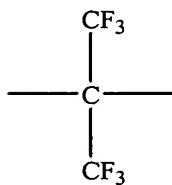
- a group ;



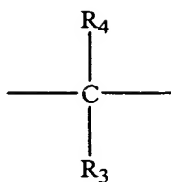
- a group ;



- a group ;



- a group ;



- a group ;

where R<sub>3</sub> and R<sub>4</sub> are selected from among the alkyl groups of 1 to 10 C ~~such as~~  
~~methyl, ethyl, and isopropyl, etc.~~

Claim 22 (Previously Presented): The sulfonated polyimide according to Claim 20,  
 in which C<sub>1</sub> is a benzenic ring, and C<sub>2</sub> is a set of two benzenic rings linked by an oxygen  
 bridge between them.

Claim 23 (Previously Presented): The sulfonated polyimide according to Claim 20,  
 in which C<sub>1</sub> is comprised of benzenic cycles linked by one or more perfluoralkylene groups

and C<sub>2</sub> is comprised of benzenic rings linked by one or more divalent perfluoroalkylenes groups or perfluroralkylenes.

Claim 24 (Previously Presented): The sulfonated polyimide according to Claim 20, in which C<sub>1</sub> is a benzenic ring and C<sub>2</sub> is a naphthalene cycle.

Claim 25 (Previously Presented): The sulfonated polyimide according to Claim 20, in which C<sub>1</sub> and C<sub>2</sub> are both naphthalenic cycles.

Claim 26 (Previously Presented): The sulfonated polyimide according to Claim 20, in which Ar<sub>1</sub> is a diphenyl methane group, and C<sub>2</sub> is a biphenyl disulfonic.

Claim 27 (Previously Presented): The sulfonated polyimide according to Claim 20, in which Ar<sub>1</sub> is a benzenic group and Ar<sub>2</sub> is a biphenyl disulfonic.

Claim 28 (Currently Amended): The ~~process~~ sulfonated polyimide according to Claim 20, in which Ar<sub>1</sub> is a diphenyl ether group and Ar<sub>2</sub> is a biphenyl disulfonic group.

Claim 29 (New): The sulfonate polyimide according to Claim 10 wherein R<sub>3</sub> and R<sub>4</sub> are selected from the group consisting of methyl, ethyl, isopropyl and mixtures thereof.

Claim 30 (New): The sulfonated polyimide according to Claim 21 wherein R<sub>3</sub> and R<sub>4</sub> are selected from the group consisting of methyl, ethyl, isopropyl and mixtures thereof.